V. CLAIMS

What is claimed is:

1. A composition, comprising a construct, wherein the construct comprises CR2 and a modulator of complement activity.

2. The composition of claim 1, wherein the construct is a fusion protein.

3. The composition of claim 2, wherein the fusion protein inhibits complement.

4. The composition of any of claims 3 wherein the modulator of complement activity comprises a complement inhibitor.

5. The composition of claim 4, wherein the complement inhibitor is decay accelerating factor (DAF).

6. The composition of claim 5, wherein the composition comprises SEQ ID NO. 10.

7. The composition of claim 5, wherein the composition comprises SEQ ID NO. 6.

8. The composition of claim 4, wherein the complement inhibitor is human CD59.

9. The composition of claim 8, wherein the composition comprises SEQ ID NO. 12.

10. The composition of claim 8, wherein the composition comprises SEQ ID NO. 8.

11. The composition of claim 4, wherein the complement inhibitor is CR1.

12. The composition of claim 11, wherein the complement inhibitor comprises SEQ ID NO. 14.

13. The composition of claim 4, wherein the complement inhibitor is MCP.

14. The composition of claim 13, wherein the complement inhibitor comprises SEQ ID NO. 16.

15. The composition of claim 4, wherein the complement inhibitor is Crry.

16. The composition of claim 15, wherein the complement inhibitor comprises SEQ ID NO. 17.

17. The composition of claim 4, wherein the complement inhibitor is murine CD59.

18. The composition of claim 2, wherein the fusion protein activates complement.

19. The composition of claim 18, wherein the modulator of complement activity comprises a complement activator.

20. The composition of claim 19, wherein the complement activator is human IgG1.

21. The composition of claim 20, wherein the complement activator comprises SEQ ID NO. 18.

22. The composition of claim 19, wherein the composition comprises SEQ ID NO. 21

23. The composition of claim 19, wherein the complement activator is human IgM.

24. The composition of claim 23, wherein the complement activator comprises SEQ ID NO. 19.

25. The composition of claim 19, wherein the complement activator is mouse IgG3.

26. The composition of claim 25, wherein the complement activator comprises SEQ ID NO. 22.

27. The composition of claim 19, wherein the complement activator is CVF.

28. The composition of claim 27, wherein the complement activator comprises SEQ ID NO. 24.

29. The composition of claim 1, wherein the construct is an immunoconjugate.

30. A method of treating a condition affected by complement in a subject comprising administering to the subject the composition of any of claims 1-29.

31. The method of claim 30, wherein the condition is a cancer.

32. The method of claim 31, wherein the cancer is can be selected from the group consisting of lymphomas (Hodgkins and non-Hodgkins), B cell lymphoma, T cell lymphoma, myeloid leukemia, leukemias, mycosis fungoides, carcinomas, carcinomas of solid tissues, squamous cell carcinomas, adenocarcinomas, sarcomas, gliomas, blastomas, neuroblastomas, plasmacytomas, histiocytomas, melanomas, adenomas, hypoxic tumours, myelomas, AIDS-related lymphomas or sarcomas, metastatic cancers, bladder cancer, brain cancer, nervous system cancer, squamous cell carcinoma of head and neck, neuroblastoma/glioblastoma, ovarian cancer, skin cancer, liver cancer, melanoma, squamous cell carcinomas of the mouth, throat, larynx, and lung, colon cancer, cervical cancer, cervical carcinoma, breast cancer, epithelial cancer, renal cancer, genitourinary cancer, pulmonary cancer, esophageal carcinoma, head and neck carcinoma, hematopoietic cancers, testicular cancer, colo-rectal cancers, prostatic cancer, or pancreatic cancer.

33. The method of claim 30, wherein the condition is a viral infection.

34. The method of claim 33, wherein the viral infection can be selected from the list of viruses consisting of Herpes simplex virus type-1, Herpes simplex virus type-2, Cytomegalovirus, Epstein-Barr virus, Varicella-zoster virus, Human herpesvirus 6, Human herpesvirus 7, Human herpesvirus 8, Variola virus, Vesicular stomatitis virus, Hepatitis A virus, Hepatitis B virus, Hepatitis C virus, Hepatitis D virus, Hepatitis E virus, Rhinovirus, Coronavirus, Influenza virus A, Influenza virus B, Measles virus, Polyomavirus, Human Papilomavirus, Respiratory syncytial virus, Adenovirus, Coxsackie virus, Dengue virus, Mumps virus, Poliovirus, Rabies virus, Rous sarcoma virus, Yellow fever virus, Ebola virus, Marburg virus, Lassa fever virus, Eastern Equine

Encephalitis virus, Japanese Encephalitis virus, St. Louis Encephalitis virus, Murray Valley fever virus, West Nile virus, Rift Valley fever virus, Rotavirus A, Rotavirus B, Rotavirus C, Sindbis virus, Simian Immunodeficiency cirus, Human T-cell Leukemia virus type-1, Hantavirus, Rubella virus, Simian Immunodeficiency virus, Human Immunodeficiency virus type-1, and Human Immunodeficiency virus type-2.

35. The method of claim 30, wherein the condition is a bacterial infection.

36. The method of claim 35, wherein the bacterial infection can be selected from the list of bacterium consisting of *M. tuberculosis, M. bovis, M. bovis* strain BCG, BCG substrains, *M. avium, M. intracellulare, M. africanum, M. kansasii, M. marinum, M. ulcerans, M. avium* subspecies *paratuberculosis, Nocardia asteroides*, other *Nocardia* species, *Legionella pneumophila*, other *Legionella* species, *Salmonella typhi,* other *Salmonella* species, *Shigella* species, *Yersinia pestis, Pasteurella haemolytica, Pasteurella multocida,* other *Pasteurella species, Actinobacillus pleuropneumoniae, Listeria monocytogenes, Listeria ivanovii, Brucella abortus,* other *Brucella* species, *Cowdria ruminantium, Chlamydia pneumoniae, Chlamydia trachomatis, Chlamydia psittaci, Coxiella burnetti,* other *Rickettsial* species, *Ehrlichia* species, *Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pyogenes, Streptococcus agalactiae, Bacillus anthracis, Escherichia coli, Vibrio cholerae, Campylobacter* species, *Neiserria meningitidis, Neiserria gonorrhea, Pseudomonas aeruginosa,* other *Pseudomonas* species, *Haemophilus influenzae, Haemophilus ducreyi,* other *Hemophilus species, Clostridium tetani,* other *Clostridium* species, *Yersinia enterolitica, and* other *Yersinia species*.

37. The method of claim 30, wherein the condition is a parasitic infection.

38. The method of claim 37, wherein the parasitic infection can be selected from the group consisting of *Toxoplasma gondii, Plasmodium falciparum, Plasmodium vivax, Plasmodium malariae*, other *Plasmodium* species., *Trypanosoma brucei, Trypanosoma cruzi, Leishmania major*, other *Leishmania* species., *Schistosoma mansoni,* other *Schistosoma* species., and *Entamoeba histolytica*.

39. The method of claim 30, wherein the condition is a fungal infection.

40. The method of claim 39, wherein the fungal infection can be selected from the group consisting of *Candida albicans, Cryptococcus neoformans, Histoplama capsulatum, Aspergillus fumigatus, Coccidiodes immitis, Paracoccidiodes brasiliensis, Blastomyces dermitidis, Pneomocystis carnii, Penicillium marneffi, and Alternaria alternata.*

41. The method of claim 30, wherein the condition is an inflammatory condition.

42. The method of claim 41, wherein the inflammatory condition can be selected from the group consisting of asthma, systemic lupus erythematosus, nephritis, rheumatoid arthritis, reactive arthritis, spndyarthritis, systemic vasculitis, insulin dependent diabetes mellitus, multiple sclerosis, experimental allergic encephalomyelitis, Sjögren's syndrome, graft versus host disease, inflammatory bowel disease including Crohn's disease, ulcerative colitis, and scleroderma.

43. The method of claim 30, wherein the subject is a mammal.

44. The method of claim 43, wherein the mammal is a human.

45. The method of claim 43, wherein the mammal is a mouse.

46. A method of reducing complement-mediated damage comprising administering to a subject the composition of any of claims 1-17 or 29.

47. A method of enhancing complement-mediated damage comprising administering to a subject the composition of any of claims 1, 2, or 18-29.